Pest Update (May 12, 2010)

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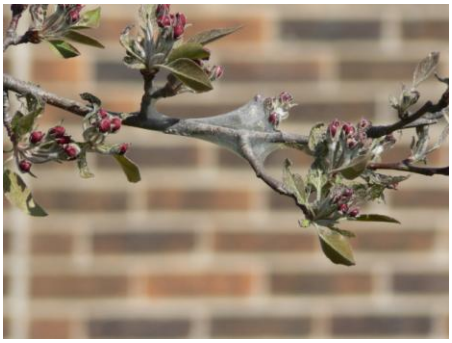
Plant development for the growing season

We are still ahead of last year as well as many past years, in plant development though this week it stalled due to the cold and snowy weather. We are seeing plants in bloom that often do not flower at the same time; peashrub, buffalo currant, crabapple and common lilac are all in bloom.

Treatments to do now

Apple scab – The **second** spray of Captan, a commonly available fungicide, should be applied now as hopefully the first treatment was applied about 7 to 10 days ago. Treatments will continue on a seven to ten-day interval until the weather begins to dry, usually mid-June. These first sprays are the most critical, miss them and the rest will not matter!

Clearwing ash borer treatments with a permethrin product can be applied now. These chemicals are applied as trunk sprays along the lower 10 feet of the trunk and should *not* be applied as soil drenches. The borers are beginning to fly as evident by the pencil size holes along the trunks of infested ash trees. The holes may have pupal skins still attached to them. The first flights are typically males with the females beginning to fly and lay eggs about a week from now so there is still time to spray.



Tent caterpillars egg masses are beginning to hatch in eastern South Dakota. It still possible to prune out the infestations since the nests are so small and the caterpillars have not migrated out yet. However within the next few days these “worms” will begin to move out and feed on the expanding foliage of cherries, apples and other preferred host. Once the insect begins to feed the treatment options become spraying and this is best accomplished while the insects are small. The most common available insecticides for controlling this insect are ones that contain carbaryl or malathion as the active ingredient. Carbaryl is commonly sold as Sevin while malathion is sold as Malathion.

Remember spaying any fruit tree during flowering will have the undesired affect of also killing any bees that are pollinating the flowers so avoid this time period.

Spruce spider mites become active now as silver maple leaves are expanding. Spruce spider mites are cool season mites meaning they are active in the spring and fall, not during the summer heat. The mites will go dormant once the temperatures consistently reach into the mid 80's. While the mites will begin feeding soon, the damage to the needles, bronzing and browning, does not typically show up until summer just as the mite populations begin to decline. Treatment options are very limited for homeowners, horticultural oils and insecticidal soaps being the two most common. These are really suppression treatments, not eradication, and the webbing often prevents these pesticides, particularly the soap, from penetrating. They should be applied now and then another treatment next week, about 7 to 10 days after the first treatment to kill the mites as they hatch from eggs. Be aware of the cautions to the use of these products, particularly for spruce, as applications of oils or soaps can result in the loss of blue or silvery color to the foliage. You can make a *blue* spruce, a *green* spruce, very quickly, so read and follow label directions very carefully. The other common spray has the active ingredient acephate but this kills more than mites and sometimes has limited effectiveness. Insecticides containing this active ingredient are also becoming difficult to find in our state, Ortho Systemic Insect Killer is the most common and only a few distributors in the state still have this product on their shelves. Acephate should also be applied in two treatments spaced 10 days apart.

There are a number of products that provide excellent control and have minimal impact on non-target organisms but these are only commercially available. However, it would be worth the time and money to have a commercial applicator provide these treatments considering the effectiveness of these products versus those available to homeowners. This is one pest it is far better to pay for a professional than attempt to do it yourself.

Information request

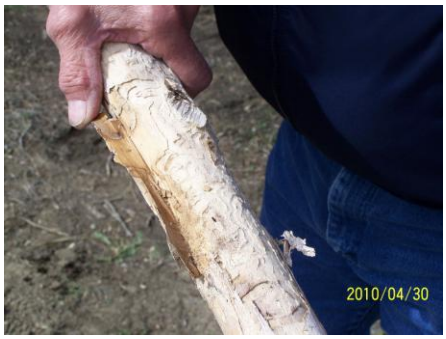
Why are the edges of my tree leaves turning black and drying? This has been a common question during the past several days. The culprit is the sudden drop in temperatures, often dipping into the mid-20s in some locations, which is injuring the tender newly expanding leaves. The injury is not occurring to all tree species, oaks for example, have barely began to leaf out so are not susceptible but many of our introduced trees, such as the Norway maple

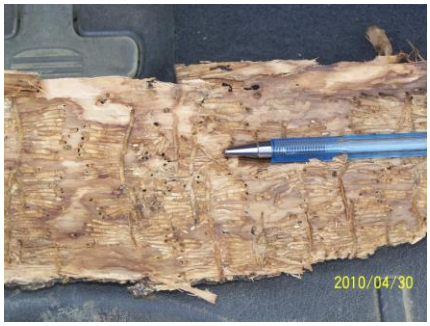
pictured here, are very susceptible as they often begin to break dormancy too early. There is nothing that can be done to repair the damage.

I also expect to receive a lot of calls in the coming week regarding ash and hackberries dropping their leaves and appearing sparse. The cold snap is catching ash and hackberries just as the leaves are coming out. When this happens, and it did last year as well, the ground is soon littered with small, partially developed leaves. While it may appear alarming, ash and hackberries quickly put out additional leaves and usually by the end of May no one can even tell that the tree was defoliated earlier in the year.

Emerald Ash Borer Update

This past week two county educators in the northwest part of the state were called out to examine dying ash trees. The landowners concern was that hunters from Michigan had been at the place a few years ago and since that is the state from which emerald ash borer was first detected it was easy to put the two event together, dying ash, Michigan visitors, and suspect emerald ash borer might be the reason. Fortunately, emerald ash borer was NOT involved in the decline and death of these trees. At this time the insect has not been found in our state. However, the educators concerns was well founded as the trees were infested with an insect that looks very close to emerald ash borer, our native banded ash beetle. This insect also makes serpentine galleries in the inner bark of the tree but its galleries often go deeper into the sapwood; a rarity with emerald ash borer. The exit holes are also oval rather than D-shaped. The appearance of the two is close enough that samples are still worth sending it to at least confirm that it is not emerald ash borer.





The same trees were also infested with the western ash bark beetle. These insects create a central camber from which larval galleries extend out in a perpendicular direction, similar to what is seen with the elm bark beetles. These insects are typically found in dead and dying trees and are more an indicator of decline rather than being the reason for the decline.

Emerald Ash Borer First Detector Program coming to South Dakota

The threat of emerald ash borer, along with other potential threats such as the Asian longhorned beetle and thousand canker disease of walnut has created the need to develop a force of volunteers that are trained to identify these pests. As these pests come closer to our state, Cooperative Extension educators and Department of Agriculture foresters may become overwhelms with requests from the public to "come out and look at my tree." Volunteers can provide a valuable first line by conducting site visits and either determining the tree is not infested or requested that the educator, foresters or other resource professional needs to examine the tree to determine if it may be infested with emerald ash borer or other exotic pests. There will be one day training sessions – 9 am to 3 pm - tentative set in Aberdeen (6/28), Pierre (7/1), Rapid City (6/23) and Sioux Falls (7/2) to train volunteers in identifying exotic pests and methods of collecting samples. Regulatory issues and how to work with the public will also be discussed during the workshop. Anyone interested in possibly attending can email John Ball at john.ball@sdstate.edu to have an information packet send directly to them.

E-samples

John over in Davison County sent some excellent pictures of hail damage on walnut and spruce (he also provided some samples). There was a major hail storm over in the central part of the state several weeks ago, but this is not a rare event and seems to happen every year. Trees that have been struck by hail have small wounds lining the shoots (but only on the upper exposed surface) that occurred that year as these are usually tender but severe hail can also damage the older branches and trunk. Hail wounds provide an entry point for disease such as fireblight and also provide a stress that allows other diseases such as diplodia tip blight to proliferate.

Samples received

Unknown County **What is this tree/shrub that is suckering up?**

This is black locust (*Robinia pseudoacacia*), a tree found in many parts of the state noted for its white pea-like flowers in June that are very fragrant. The

tree can suffer winter-dieback in the central part of the state and this may explain why it appears to be a shrub.

Faulk County **What is wrong with this Scotch plne?**

The discoloration on the needles is not related to any disease so I'll have to look at the tree in June while I am in the area. I suspect the problem is site related.

Faulk County **Please identify this weed.**

This is bur-buttercup (*Ceratocephala testiclatus*) an annual that appears very early in the spring and its known (and hated) for the summer burs! Fortunately it is easily controlled with 2,4-D.

Gregory County **What is wrong with this tree?**

This is (was) a Colorado blue spruce. While there may be more wrong with the tree than I can tell from the sample, it is clear the branch submitted has cytospora canker. This is a common branch disease of spruce and while it typically occurs on mature trees, those more than twenty years old, I have been it appear in even younger trees. There is nothing that can be done to control the disease other than maintain, or improve, tree health.

Perkins County **What might be wrong with these pines? Two have long needles and the third has short needles, though the symptoms are similar**.

The problem on the long-needled pines is dothistroma needle blight. I am seeing more of this problem this spring than the past several years. Fortunately the window for control is mid-May so there is still time to treat. The symptom most likely began appearing last summer or fall though by now the discolored foliage is very noticeable. The symptoms start with yellow and tan spots that become bands around the needle bordered with a yellow halo. Usually by spring the halo has darkened, along with the band, and most of the needle has dies though the very base is often still green. The disease is difficult to identify as the symptoms are similar to a number of other stressor but in the spring small black fruiting structures will erupt from the tissue. The twigs and even buds on the samples were still alive and healthy since dothistroma is a needle disease, unlike the other common disease diplodia that infects the tips. Control is a copper fungicide applied as the new growth expands – now – and repeated in late June and mid-July. The short-needled pine is Scotch pine and its needle discoloration may just be site related. I have seen very many healthy Scotch pines in your region due to the harsh winter conditions.

Yankton County **Numerous samples!**

I received the following from Yankton – a twig of forsythia (Forsythia ovate) that looked good so I assume it was an identification, also a vine twig that turned out to be American bittersweet (*Celastrus scandens*), a juniper twig with

phompsis and a couple of spruce branches that were covered with spider mites (that is why there was stippling on the older needles). Now would be a good time to begin treatments for the mites.